



# Warroad River Sediment Source Assessment



## Clean Water Funds: 2012

Clean Water Grant	\$37,446
Leveraged Funds*	\$17,500
Total Project Budget	\$54,946

\* Leveraged Funds include required 25% local match

### Project Sponsor:

Warroad River Watershed District

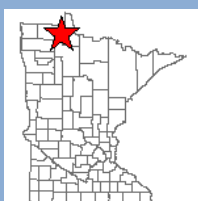
### Grant Period:

January 2012—December 2014

### Project Contact:

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C12-117 - Accelerated Implementation

## Project Narrative

Lake of the Woods is a world-class fishery and an important economic driver for Roseau County. The proposed project will investigate and quantify sources of sediment to the lower portion of the Warroad River near its confluence with Lake of the Woods.

Sedimentation at the mouth of the Warroad River is a concern for several reasons including fisheries habitat, water quality and the drinking water supply for the city of Warroad.

High resolution electronic data will be used to estimate the volume of sediment delivered from overland sources. Historic dredging records will be compared with the estimated watershed contribution to

estimate the amount of sediment contributed by eroding lakeshore on Lake of the Woods itself. This sediment balance will help to quantify the scale of the sedimentation problem and to focus implementation activities.

Results of the analysis will indicate areas with potential for excessive soil erosion where efforts to implement projects should be targeted. This outcome is particularly valuable to local resource managers for prioritizing and funding projects within the watershed and effectively managing efforts to reduce erosion/sedimentation that improve water quality overall. Results will help in addressing a problem that's been recognized in numerous studies and reports.



## Proposed Outcomes:

Hydrologically Conditioned DEM and Terrain Analysis Products including a Stream Power Index and RUSLE DEMs

Warroad River delta sediment balance including terms for watershed contribution, accumulated sediment, and LOW and/or streambank erosion

Public Outreach and Education

Final Project Report

## Actual Outcomes:

Project in Progress

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